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DR. CHAPIN'S PRIZE DISSERTATION ON TENOTOMY.

[Concluded from page 155.]

Deformed Feet.—It may not be deemed unimportant, before noticing the "advantages and disadvantages" of tenotomy, to allude very briefly to some of the deformities that are proposed to be corrected by it. Of these, such as affect the lower extremities, if not the most frequent, are much the most obvious and important. Exposed to the gaze of the ill-bred, and the unkind remarks of the thoughtless, they often prove a source of serious annoyance to the sensitive sufferer, as well as a cause of great practical inconvenience. The skip and gambol of youth cannot be indulged in; and the firm and steady pace of maturer years, must be exchanged for the halt of old age.

Orthopœdic surgeons have made four grand classes of deformities of the feet, and have designated them by the terms—talipes varus; t. valgus; t. equinus; and t. calcaneus, or equestris. Each of these varieties includes several degrees of variation from the normal position and shape. The remote causes of these several deformities are matters of vague speculation, and the predisposing or exciting causes are not always obvious. The immediate cause consists, as already observed, in the shortening or contraction of one or more of the muscles that connect the foot with the leg, and of the ligaments that connect the several bones of the foot with each other. The extent of the deviation is often truly frightful; and offers to the inexperienced a much more complicated and obstinate deformity, than the improvement and wonderful results of this branch of surgery directing the cure, have proved it to be.

In *talipes varus*, which is the most common of the four species, we find three varieties, or, as they might be termed, degrees of mal-formation or mal-position.

The *first*, is where there is but a slight elevation of the inner part of the foot, thereby throwing the principal pressure of the body upon the outer margin of the foot. The absolute deformity is not great, and is hardly observable unless the person is walking. The peculiarity then shown has given to the step the appellation of "pigeon or parrot toed." By fixing the heel firmly, which is but slightly elevated, by one hand, while the extremity of the foot is grasped by the other, there will be but little resistance offered to bringing the whole into the natural position. It is evident that the weight of the body, and the mediate cause, both tend to increase the defect and bring it to

The second degree, when the foot is still more turned in the same direction, so as to bring the support entirely upon the outer margin. The heel is also more elevated, throwing the foot forward and causing the most of the pressure to fall upon the little and third toes. The great toe falls within the first toe, the sole of the foot looks inward, its plane making nearly a right angle with the surface upon which the foot rests. The motions of the articulations are straitened.

The *third* degree presents the foot almost at right angles with its natural position. The weight falls upon the upper part of the outer edge of the foot, the sole looks almost directly backward, and inward, while the upper part, or dorsum, is seen forward and outward. The length of the sole is much contracted, which gives the dorsum an unnatural convexity. The tarsal and metatarsal bones are much displaced, and the heel is drawn still more upward and inward. In neither of the last two degrees is the force of the hand, alone, sufficient to restore the foot to its natural position. The foot is also much below the normal size, and if an attempt to correct the deformity is too long delayed, it seldom attains the full size, though it may have a nearly natural position.

In *valgus*, the *second* class, the deformity places the foot in directly the opposite position with the *first*. It is usually caused by accident. In this class, also, there are three degrees.

The *first* is when the weight of the body falls upon the inner part of the sole, depressing the inner margin, with a corresponding elevation of the outer edge. The heel is but slightly elevated; the dorsum of the foot is depressed. This variety requires a stronger force to restore the foot to its natural position than the same degree in the first class. The gait is called "knock kneed."

In the *second* degree, the foot is thrown more forward and outward, bringing the chief pressure upon the ball of the great toe. The heel is also more elevated, and thrown outward, and the variations of the first degree are increased.

In the *third* degree, the whole weight is thrown upon the inner and upper edge of the foot, giving the dorsum a vertical position and a forward presentation, while the sole of the foot looks backward, and slightly outward; occasionally the heel rests upon the ground.

Pes equinus, or the *third* class, gives us three degrees of deformity, or mal-position, for the *first* can hardly be called a deformity, since the position, only, and not the shape of the foot, is abnormal. The heel is only a little elevated, which throws the weight of the body upon the balls of the toes. These are somewhat spread, and turned up.

The *second* degree presents the heel still more elevated, and the longer axis of the foot being nearly in a line with that of the leg. The member is folded upon itself. The sole is crowded with fissures, is very concave, and the dorsum projects more than usual and shows several protuberances, owing to the displacement or luxation of some bones, most usually the scaphoid. Especially is this the case if the part has borne much and long-continued pressure, from standing or otherwise.

The *third* degree is when the heel is so much drawn up as to bring the dorsum of the foot into nearly a right line with the shin. If it remained so placed, the ends of the toes would be the only support; but, as might be supposed from the flexibility of the parts, they yield to the superincumbent weight, if it is long continued, and the deformity passes into the second or third degrees of valgus or varus. This shows the importance of an early remedy.

Talipes calcaneus, or the *fourth* class, is the opposite of talipes equinus. It results from an undue contraction of the muscles of the front part of the leg, and is very rare. Dr. Little was the first to notice it, and Dr. Detmold has since met with but one solitary case of such deformity, and from its resemblance to the position of the foot in the stirrup, he prefers to name it *talipes equestris*; he thinks it would ensure more uniformity in the nomenclature, and in a half playful manner he adds that "another reason for suggesting this, is, that the only child in which we saw it, is the child of a former dragoon officer, and putting our theory about the paternal inheritance of talipes a little upon the stretch, the child may have been afflicted with the deformity in consequence of his father having been too long in the stirrup."

Of the several deformities, varus is the most common, and often congenital. The two former seldom are so. They are most usually the results of external injury or disease, and are the most difficult to remedy. The muscles of the leg are lax, soft, and are much wasted. They lose their tone and strength, and do not answer readily to the will. Pes equinus offers some exceptions to this rule.

Operation.—Varus.—When it becomes necessary to operate in the deformity, it is plain from the anatomy of the part, and the character of the deformity, as described, that the division of the tibialis anticus, and, it may be, of the tibialis posticus, will be necessary. The general manner in which this is to be accomplished has already been noticed. The division is to be made upon the inside of the foot, and after this is done, the part is brought, after waiting a proper time, varying from one to three or four days, as nearly as practicable into its natural position, and some one of the many contrivances that have been devised to keep the part there is to be immediately applied. The particular adaptation of the apparatus belongs exclusively to orthopœdic surgery, and should be treated of in a work devoted to that particular department. The kind of apparatus used, will depend upon the views the operator may entertain of its adaptedness for the accomplishment of the end proposed. Our present object is only to speak of the deformities as corrected by tenotomy alone. This will enable us the better to determine *what* it accomplishes and *how* it does it.

In varus of the *second* degree, the tendo-Achilles is implicated, and if the case is one of much standing, the resistance offered by the fascia plantaris, and tibialis anticus, and posticus, will require removal.

The *third* variety of varus also requires the same division, but more imperatively. The question will be asked, by the opponents of tenotomy, "cannot all this be accomplished without a division of the tendons?" We reply, it *may* be. "Of what service, then, is tenotomy?" It allows the cure to be accomplished with more *certainty*, in a *much shorter period*, and with less *suffering* to the patient, and it increases *general safety*. It allows the removal of deformity *earlier* with infants, and *later* with those more advanced.

Valgus.—The tendons of the muscles in fault are here to be divided the same as in *varus*. The particular manner of subsequent treatment is a matter of orthopœdic surgery, and its introduction to this essay would be forced.

Talipes equinus.—When it becomes necessary to operate for this deformity, the tendons to be cut are the Achillis, the fascia plantaris, and most generally some of the tendons of the toes. If the case has passed to some degree of varus or valgus, one or each of the tibial tendons will require division. Each particular case will determine the particular operation. Only general rules can be given. The modification of the treatment must rest with the skill of the practitioner. When several tendons are to be divided, they should not all be cut at once. By so doing, we should increase the danger of irritation, and perhaps defeat the accomplishment of our object.

Talipes equestris requires a division of the principal flexor muscle connecting the foot with the leg.

False Anchylosis.—False anchylosis is another object to be relieved by tenotomy. By false anchylosis is usually meant a rigidity of the ligaments and tendons, and it may be a membranous union of the articular surfaces, that impede the functions of the affected part. A variety of causes may induce this state of a joint, but it is only when the rigidity depends upon muscular contraction, or, as it is sometimes called, structural shortening, that sub-cutaneous section is indicated. Tenotomy may also be practised in deformity of the hip, with luxation—though in this case it should not be employed until "the original disease, and any tendency to relapse, have completely subsided."

The sub-cutaneous section has also been practised, and with the most flattering success, by Dr. Little, for the relief of false anchylosis of the knee. I cannot better express the character of the operation than by the use of the doctor's own words. "No class of deformity," says he, "better illustrates the advantage of the Stromeyeran operation for the relief of deformities, for although the relief afforded by this method, when properly conducted, in cases of club-foot, may appear to be more complete, yet the consideration of the comparatively greater importance and size of the knee articulation, the circumstance that angular deformity of that joint necessarily impairs the function of the corresponding ankle, together with the greater amount of lameness attendant on contracted knees than on club-foot, will suffice to show that the relief of knee anchylosis by tenotomy is as great an addition to the healing art, as that of club-foot." "White swelling, * * * * notwithstanding that this disease is particularly prone to terminate in deformity, constitutes the most favorable form for dividing the tendons, the subsequent mechanical treatment being more easy, and the restoration of the limb more complete, than in anchylosis from rheumatism or from extensive suppuration from phlegm."

Permanent contractions, whether the result of spasm or paralysis, accompanied by structural shortening of the muscle, are relieved by tenotomy.

With regard to the relief tenotomy affords for deformities of the upper extremities, Dr. Little has the following remarks. "In principle, subcutaneous tenotomy is equally applicable to the upper and lower extremities; but a wide difference exists in the application of the principle." A part of the difference depends upon the more complicated structure and greater diversity of motion of the upper extremity. Though the ankle is susceptible of flexion and extension, abduction and adduction, yet how awkward and stiff are the motions of this member compared with the delicate and endlessly various motions of the forearm and hand. What an increased number of muscles, tendons, nerves and ligaments, are crowded into a still smaller space; all of which greatly embarrass the application of orthopœdic surgery. The removal of one deformity, may, by exciting irritation and consequent adhesion, produce a deformity "seven times worse" than the first. Such considerations as these will warn the enthusiastic tenotomist to proceed with extreme caution in the practice of his art. Patience, judgment, an intimate knowledge of the anatomy of the parts, their physiological relations, and pathological changes, are all essential, even to tolerable success. Without these, tenotomy becomes a dangerous humbug, and the surgeon an empirical pretender, playing upon the ignorance and infirmities of poor human nature.

In cases of angular knee anchylosis, after the division of the several tendons implicated, as those of the biceps, semi-membranosus, semi-tendinosus, &c., Dr. Little has proceeded in some cases to divide the nervous filaments. He says, "if unaware of their nature, you might, before their section, suppose them to be fibrous bands, but the peculiar pain complained of by the patient will indicate their character. An experience, founded on the performance in numerous cases, and the management of the subsequent mechanical treatment, has shown me the propriety of not leaving these filaments undivided. If stretched during the after-treatment, very severe pains may be experienced, enduring weeks or even months." In most cases the operation is followed by little or no pain, or fever, and the puncture cicatrizes, and the severed filaments unite kindly, when perfect rest is enjoined and maintained.

Strabismus.—The operation for strabismus, or squinting, though more strictly one of myotomy, has been classed among those of tenotomy, and may not be inappropriately noticed in this connection. It is a mortification to learn that the first suggestion for this important measure, came from a migrating charlatan of the early part of the last century. About forty years after, it arrested the attention of some German physicians, but it was not received with much favor. Its practicability was afterwards fully demonstrated by Mr White, of London, who performed the operation upon several inferior animals; but it was left for Dieffenbach, of Berlin, to apply it successfully to the human subject. More than a century after its unhappy origin, and with a doubtful reputation, it has, with a rapidity unequalled in the history of medicine, acquired a permanent place among the resources of modern surgery.

The particular defect proposed to be remedied consists in an irregular contraction of one or more of the muscles of the eye, most commonly the rectus internus. This defect appears in many cases to be hereditary, though not often congenital; it is frequently a sequence of nervous diseases and injuries.

Since the disease, as a general rule, has no disposition for a spontaneous cure, it becomes necessary to resort to an operation. Supposing the rectus internus to be the faulty member, the manner of effecting a division is as follows. Cause the patient to turn the eye outward; then seize a fold of the conjunctiva by a hook, or forceps, a little without the membra-semilunaris, then with a small scalpel or scissors cut through the elevated portion of the conjunctiva, and also the subjacent cellular tissue. With a blunt hook, passed under and behind the muscle, expose it to view, and with a pair of blunt pointed scissors divide its semi-tendinous portion as near as practicable to its insertion. If, after the division, the pupil can be directed inward, it is evident that some connecting bands remain undivided; these must be searched for with the hook, and divided. Connected with the operation there are many minor manipulations, which it is needless to mention in this place. Where it was proper that the operation should have been performed at all, and when well performed, it has in most cases proved successful, nor is there, as has sometimes been stated, a very strong tendency to retain the defect. The division of the other muscles of the eye requires only such modifications as will readily suggest themselves.

Deformed Toes.—Deformity or mal-position of the toes is often the result of inflammation or irritation induced by wearing tight shoes. The difficulty is first noticed by pain and weakness in the parts thus cramped. The gait becomes defective, and continued walking is extremely irksome. The flexor muscles are in defect, drawing the points of the toes down, and, where one toe only is affected, its extremity is hid beneath its fellows, upon either side. Upon the apex formed by the bending of the middle and proximal phalanges upon each other, there is usually a callous projection, that is extremely sensitive and troublesome.

For the relief of such mal-position, the operation consists in passing a very narrow, thin blade beneath the integuments of the first phalanx, and the flexor tendons; turn the cutting edge towards the bone and divide the tendons. The contraction is occasionally so rigid as to prohibit the toe from being brought at once into a perfectly normal position, but a proper application of splints, or such other apparatus as the surgeon's skill may suggest, will eventually accomplish the desired purpose.

Advantages.—1st. It prevents the accession of spasm. When an attempt is made to reduce a deformity, produced by a retracted muscle, to its normal condition, the degree of force necessary to overcome the contraction is so great, as to produce irritability and a repetition of violent and continued spasm. These become so excessively painful as to be altogether insupportable, and we are obliged to abandon our treatment. A division of the tendon of the faulty muscles diminishes the retractive force, lessens the pain of extension, and consequently the liability to the supervention of spasm.

2d. Where the deformity occurs in those of rigid fibre, and withal somewhat advanced, who are robust, and have been much accustomed to labor, the mere force necessary to make an impression upon the retracted muscle is extremely painful. Besides, even by such force the parts will often yield but little. Cut the tendons, and the difficulty is removed.

3d. A division of tendons brings many cases within the range of *perfect* cure, that would otherwise be but *partially* remediable, or entirely beyond any relief whatever; especially is this the case when there is a chondroid transformation of muscular tissue. This occasionally occurs in contracted muscles. Instead of the ordinary waste of fleshy fibre, we find there occurs in the cellular tissue a deposit of pseudo-cartilaginous matter, not unlike that forming the bones in their earlier stage of development. Where there is such a condition of the parts, the most devoted "machinist," if he will not allow the utter impossibility of extending without the aid of tenotomy, will at least grant that the operation gives a saving of much time, pain and expense.

4th. It diminishes the period of cure. It will be given, as the belief of any orthopœdic surgeon of much experience, that one half the time necessary to effect a cure by extension alone, may be saved by a division of the tendons at first. It may also be accomplished more *perfectly*, and with infinitely less suffering. The former object affects the future well-being of the patient. It moreover reflects upon the reputation and skill of the operator. A half-performed cure is but little more creditable than an utter failure. The latter object gained, affects the patient's present comfort. Instead of lingering along through weeks, and it may be months of uneasiness and extreme torture, he is transferred, after the slight pain of the operation and the discomfiture of the first few days, to comparative ease and quiet. After the part becomes habituated to confinement and the straitness and pressure of the apparatus, there is but little more trouble. And this usually happens, except in unusually irritable subjects, after the lapse of the first few days. I do not mean to assert that the division of tendons is the most efficient means of reducing these deformities; but that it is a most important agent, but few unprejudiced practitioners will deny. The ultimate result will be modified by the judiciousness of the subsequent treatment. The proper regulation and continuance of that is of the utmost consequence, and is fully treated of in the several works relating to the deformities that are objects of tenotomic manipulation.

5th. When a tendon is divided, extension is readily effected, and that before an union is effected, provided the extension is continued. There must be an increase of the medium of continuity. In other words, the space formed by division must be filled. The substance by which this is accomplished readily admits of extension and elongation, and it is this that compensates for the structural shortening of the muscle.

6th.—When there is no structural shortening, as is the fact in all recent cases, and even in old cases where the cause is purely spasmodic, tenotomy relieves the spasm dynamically. The contractile or spasmodic energy—or, as Dr. Detmold calls it, "the surplus of vital power"—is cut off by the division, and the muscular energy is restored to its natural standard. This is the theory of both Stromeyer and Detmold, as applied to this particular operation, though its practical utility is successfully tested in the division of stricture generally. Did not the spasmodically contracted muscle possess an unnatural share of energy, a division of its tendon would result in debility and deficient action or lameness. In some cases, one division of the tendon does not destroy entirely the spasmodic energy. A second division must then be resorted to.

7th. Another, and a very important advantage derived from tenotomy, and closely connected with the latter, is, that by relieving the spasm, the means of increased nutrition are afforded to the affected parts. It is an universally-observed circumstance, that, when there exists continued contraction from spasmodic action, the muscles are withered and shrivelled. The nerves and bloodvessels participate in their derangement. The former lose their integrity; the latter are diminished in volume, and their power of propulsion is lessened. Hence there is less plumpness, and a greater want of calorific energy, in a withered limb, than in one of normal condition.

8th. Tenotomy enables a cure to be effected by an ordinary apparatus for extension; while without it, the machinery necessary to remove the deformity would be without the compass of the skill of the operator, or the means of the patient. It may be said that this is making a want of mechanical tact, a reason for operating. Granted—but if the reason cannot be obviated, why is it not philosophical to pursue the next best course? As has been remarked by a distinguished member of the profession—"Not every operative surgeon, nor every one of high and just pretensions, can apply a difficult complication of bandages, steel and leather, with discretion."

Disadvantages.—Of the disadvantages attending tenotomy, it will be seen that some of them are real, and founded upon past experience, while others are alleged by the opponents to tendon-cutting, and find a much broader foundation in the imagination of those who advance them, than in any well-attested fact. Many of them are mere denials of the advantages to be derived from the plan of division.

1st. The operation, while it increases the risk of positive evils, does not entirely remove the necessity for much mechanical force, and of consequence the suffering and danger of such extending force. The reason of this will appear obvious when we reflect upon the position of the bones and ligaments implicated in the defect. These will show that much wariness and caution should be exercised, even where the tendon has been cut, lest the same untoward circumstances should arise that it is the object of tenotomy to obviate. The force of the several sets of muscles is not the only cause of deformity; or, rather, it is not the only obstacle to restoration. In the case of club-foot, the bones have adapted themselves to the mal-position, and the several ligaments have been contracted or extended, as the case may be, and all still offer the same force to proper extension, as if no tendon had been cut. This might be illustrated by example, was it deemed necessary to a better understanding of the subject; but every one familiar with the mechanism of the parts involved, and with the general physiology and pathology of the several tissues, will comprehend the difficulty alluded to without farther detail.

2d. When a tendon is divided, it has been remarked, that the bond of union admits of extension. In some cases the readiness of extension will prove a source of much inconvenience in the attempt to remedy the entire defect. For instance, in the deformity called pes equinus and varus of the third degree, the heel is not only drawn up, but the foot is doubled or folded upon itself. Cut the tendo-Achillis, and what do we effect? By a yielding of the new bond of union, between the extremities of the divided tendon, the heel is readily brought down, but the very ease by which this is accomplished prevents the extension of the contracted arch to that degree which would have been the case had no division been effected. This disadvantage may be partly obviated by a farther division of the fascia plantaris, though it must be acknowledged that this particular part of the deformity is not so completely removed when tenotomy is performed as when reliance is placed wholly upon mechanical extension. I say so *completely* removed. But so far as my knowledge extends, in all the reported "cases of perfect cure" where the deformity in question has existed, more or less of it has remained, notwithstanding every attempt to remove it.

3d. While tenotomy may allow the parts to be restored to their natural position sooner than they would otherwise be, yet the firmness necessary to keep them there is not always so soon restored or gained as would have been the case had no operation been performed. The *apparent* cure has been effected, when the danger of a return of the mal-position of the parts is increased by a neglect to continue the proper precautions, and by the difficulty of enforcing a particular plan of treatment, while there is no apparent necessity for it.

4th. Where the deformity is dependent upon spasm of the muscle, the division of its tendon is immediately followed by the contraction of the muscle to its minimum longitudinal dimensions. "The distance," says Dr. Coates, "between the divided extremities is at once brought to its maximum, and a very long portion of new-formed matter must be interposed between them, in the process of cure. It is vain to pretend that in this condition the muscles can perform their proper functions. They are reduced, together with their tendon, nearly to the effective condition of a single ligament; and the patient may remain for life incapable of rising upon the toe—a motion of the utmost importance to easy progression." Such *may* be the case, but the experience of practice shows that it does not often occur; and when it has happened, it may have been the result rather of injudicious treatment after the operation, than of the simple division of the tendons.

5th. When a muscle has been long placed out of action, or the power of exercising its proper function, its nutrition is modified also. It is subjected to marasmus, it wastes, and loses in a measure its fibrous character, and in extreme cases is converted into what is but little more than condensed cellular tissue; retaining, however, the power of assuming its normal condition and its tonicity and power of retraction the moment it is placed in a condition to do so. Tenotomy restores this condition, and as the cellular tissue receives its fibrous deposit, the whole muscle gradually retracts, and putting the new bond of union more and more upon the stretch, the ends of the divided tendons are brought farther and farther asunder, until such action is arrested by the increased tendinous character of the medium of continuity. The result of this is the loss of strength, and impediment to free motion.

6th. Tenotomy offers an inducement to *hurry* the cure too much. This objection, or disadvantage, holds rather against the operator, than the operation. But, nevertheless, such is the practical effect. Mal-position of the parts is, comparatively speaking, so readily overcome, that time is not allowed for the osseous, cellular, cartilaginous and ligamentous tissues to undergo the several changes necessary to prevent a permanent and intractable deformity.

7th. Among the immediate dangers resulting from the practice of tenotomy, are enumerated that of wounding important blood vessels, and consequent inflammation with its train of grave attendants.

These are very formidable dangers, to be sure; but the long experience of the very highest authority shows that the fear of any such results is without foundation. *Ordinary* skill will, in any case that does not positively prohibit the operation (as when there is already much inflammation, where there is an irritable ulcer in the neighborhood of the operation, when there is a very strongly-marked scrofulous diathesis or some idiosyncracy), enable the surgeon to escape unharmed from all these bug-bear dangers. Would that the dangers were equally small in some of the not less important, but far less questionable resources of practical surgery.

BELLADONNA IN SCARLATINA.

To the Editor of the Boston Medical and Surgical Journal.

Dear Sir,—Your able correspondent, Dr. Bachelder, of Massachusetts (see Vol. XXX., p. 209), was in error respecting the introduction of belladonna as a prophylactic in scarlatina. The doctor says that no trials were made with the belladonna in England until the year 1833. This is a mistake. A friend of mine, Dr. John Williams, of London, made frequent use of the tincture, both as a remedy in, and a prophylactic against, scarlatina, as recommended by the celebrated Prussian physician Hufeland, in the year 1828. I resided in 1830 in the city of Pittsburg, and used the tincture as a prophylactic against the contagion of this malady. The disease prevailed in a school in the vicinity of the city; three of the children were attacked with the disease, one of whom, from its malignant character, died on the third day. There were in the school, at that time, fifteen other children, to whom I gave the tincture, and they all escaped the disease. In a small house in the vicinity of this village, last year, were four children attacked by scarlatina maligna, and there were also in the house three other children. The youngest of the children attacked, being about 11 months old, died; the others recovered. To the other three I gave the tincture twice a day, for ten days in succession, and they entirely escaped. The following is the formula I used in preparing the tincture:—R. Belladonna ext., ℈j.; spts. tenuior, ℥ iv. M. Give as many drops as the patient is years old, twice a day, in a little simple syrup.

I will not offer an opinion on the *modus operandi* of this medicine. I give you the facts as they occurred in my practice, and I would be glad if my medical brethren would make trial of it, as a prophylactic, and a remedy. In the one case it will prevent, and in the other mitigate, the severity of the disease. Now whether this medicine acts as a preventive by diminishing the excitability of the system, so as to render it unsusceptible of the action of the "contagion," or any condition of the atmosphere, I leave some of your more learned correspondents to answer.

Martinsburg, Ind., Sept. 17, 1844. Yours very truly,

E. C. Sugg, M.D.

TRIPS INTO THE FARTHER WEST BY INVALIDS.

It is well known, that from the bed of the Mississippi to the base of the Rocky Mountains, through an average of 20 deg. of longitude, there is a general ascent, till the western edge of the great inclined plain, in the latitude of 42 to 43 deg., according to Lieut. Fremont, attains the altitude of 7,000 or 8,000 feet above the level of the sea, or about 16 times that of Cincinnati, Louisville, and St. Louis. From this elevation, the mountain range, which divides the waters of the Pacific from those of the Atlantic, rises 4,000 or 5,000 feet higher, having its summits covered with perpetual snow, and consequently condensing the vapors, brought by the west wind from the former ocean. The rivers which meander through this largest of all prairies, are chiefly the Platte, the Kanzas, and Arkansas, in the latitudes of Ohio, Kentucky, and Tennessee. It is mainly along them and their tributaries that any woodlands are to be seen; everywhere else the traveller meets only with such herbaceous plants and grass, as delight in a thrifty soil. At certain times, copious rains fall on this region, but a sandy soil soon imbibes them, and dews are consequently sparing; while permanent swamps or marshes are almost unknown. In fact the air and earth are dry and comparatively free from fogs, musquitoes, and malaria, after we have ascended the inclined plain a few hundred miles from the right bank of the Missouri river.

Such is the outline of the boundless savannahs on which, in these latter days, some enterprising invalids have sought for that health which our polypharmacy had failed to impart.

The gates of entrance into this great field, are the mouth of the Kanzas, in the latitude of Cincinnati, and the mouth of the Platte, about two degrees further north, that is, in the latitude of 41 deg., 02′ 11″. The routes are, along the latter river, in the direction of the South Pass to Oregon, and between the waters of the Kanzas and Arkansas, to Santa Fee and Lower California; there is, also, a road from the valley of the Kanzas, to that of the Platte. The mule is the camel of this desert. Equally adapted to the saddle and the harness, strong, hardy, healthy, not much of an epicure, and capable of subsisting on very little, he may be regarded as the *sine qua non* of the trader, traveller and invalid, in their wanderings over this woodless wilderness. The small mules are preferred to the larger, and females to males. I lately rode one a short distance, which had just brought her owner from California, and found that her sure, easy and nimble walk, raised in me such an inclination to put off for the Rocky Mountains, that I prudently dismounted, especially as I was not provided with that indispensable implement of the traveller into this newest Far West, a good rifle.

Well, the arrangements are now made for the journey of health; but who are the invalids that may undertake it, with the hope of benefit? I answer:—First. *Dyspeptics*, who by intemperance, gormandizing, idleness, or hard study, have broken down their digestive organs. Second. *Hypochondriacs;* such as students of medicine who have been rejected after a third examination—unfortunate speculators, who are unwilling to work, and want time for meditation on future schemes—disappointed office-hunters, who have cracked their voices in proclaiming their merits to the people; and dismissed office-holders, who would otherwise make a "voyage up Salt River." Third. Those who labor under chronic hepatitis and jaundice. Fourth. *Consumptives*, who are not too far advanced to take the saddle.

Let us now inquire for a moment into the circumstances from which the proposed benefits will result. 1st. Extrication from the luxuries and dissipations of society. 2d. The regular and long-continued exercise. 3d. The reduced and simple diet. 4th. Lodging on the ground, amidst the short grass. 5th. The constant immersion of the body in a dry, unmalarious, and invigorating atmosphere. 6th. The exercise of the senses on new objects and scenes. 7th. The excitement connected with the danger of being lacerated by the bullets of the *Pawnees;* pierced to death by the arrows of the *Blackfeet*, or picked to death by the *Crows*.

Possessing these active qualities, a trip to the Rocky Mountains cannot fail, in numerous cases, to accomplish more than every other remedy, and I beg leave to commend it to all who are interested, as a measure that will either kill or cure.—*Dr. Drake's Travelling Letters.*

DEATH FROM FALSE TEETH IMPACTED IN THE ŒSOPHAGUS.

[DR. JAMES DUNCAN, Surgeon to the Royal Infirmary of Edinburgh, relates, in the Northern Journal of Medicine, the following interesting case of fatal hæmorrhage from perforation of the arch of the aorta by two artificial teeth accidentally passed into the œsophagus.]

A young man, aged 22, a dentist's workman, having lost his two front teeth by an accident, supplied the deficiency by a couple of artificial teeth secured on a frame in the usual way. He sometimes slept with these teeth in his mouth. On the 28th of February last they were missing in the morning, and the young man complaining of pain and difficulty in swallowing, he applied to Mr. Syme, who with a probang detected a foreign body in the œsophagus, much beyond the reach of the ordinary forceps used for extracting foreign bodies from the gullet. The patient was removed to the Infirmary, and attempts were made to entangle the foreign body in a skein of thread connected with the probang, but in vain. By and by the pain subsided, and the patient left the hospital in the evening of the 9th day, March 8th. Next morning Dr. Duncan was hastily summoned to see him at home. In rising from bed, and crossing the room, he had become suddenly faint and giddy, and had vomited a mouthful of blood. He was immediately removed to bed, and complained of a feeling of great weakness, and of some slight difficulty in breathing. His face was pale, and the skin rather cold, but the pulse was of moderately good strength. From his description of what had taken place, I was led to believe that the foreign body had been dislodged from its situation, and that it was possibly within the reach of the forceps, with which I had provided myself. I accordingly requested him to sit up by the side of his bed, to enable me to make the necessary examination. This he did with ease, and without much assistance, expressing great anxiety to have something done to relieve him. The act of depressing the tongue, to enable me to introduce the forceps, produced vomiting, and a mouthful of dark fœtid blood was discharged. This was immediately followed by another but much larger quantity of fluid of the same description, perhaps about eight or ten ounces, and the false teeth were heard to rattle against the vessel into which it was received. The patient was immediately aware of this, and his friends were overjoyed at what had taken place. Another mouthful of the same fluid was then ejected; an interval of a few seconds elapsed, and then a mouthful of bright arterial blood was discharged; a second and a third followed, the lips became livid, the pulse at the wrist ceased, the patient gave one or two convulsive sobs, and expired.

An inspection of the body was readily obtained from the friends. The pharynx, the œsophagus, and stomach, along with the carotids, subclavians, and arch of the aorta, were removed entire, a ligature having been previously thrown around the duodenum to prevent the escape of the blood which had accumulated in the stomach, and so enable us to form an estimate of the quantity which had been lost. The œsophagus, stomach, and duodenum, were found distended with pretty bright arterial blood. The quantity could not be measured; but in the opinion of those present at the examination there could not have been less than eight or ten pounds. The pharynx and œsophagus were laid open by an incision posteriorly, carried as low as the cardiac orifice of the stomach. About 4½ inches from the rima glottidis there was an ulcerated perforation of the anterior part of the œsophagus, of about three fourths of an inch in length and three lines in breadth, passing obliquely upwards from the right to the left side. The edges of the perforation were rounded, and there was considerable surrounding injection of the mucous membrane. By this opening the probe could be readily passed into the aorta; but the latter vessel was not laid open at the time, it being thought better to immerse it for a day or two in spirits before doing so. On laying open the aorta subsequently, a perforation of about the size of a large crowquill was found about half an inch below the origin of the left subclavian artery. The opening was irregular in form, the edges everted, and at the lower part there was a pretty firm adherent coagulum. There was little or no vascular injection around this opening. The artery was otherwise perfectly healthy.

THE WATER CURE.

[Dr. R. H. Graham, of London, has recently visited the "water genius" of Graefenberg; and, though possessing no very strong faith, it would seem, in Priessnitz's mode of treatment, yet with a very high opinion of the therapeutic agency of cold water in scientific hands, placed himself under the care of this celebrated pretender. During the two months he remained at Graefenberg, he enjoyed every opportunity of ascertaining the nature of the complaints treated, the kind of patients who applied, and the processes gone through with. Since his return to London, he has published a work upon the subject, under the title of "Graefenberg; or a true Report of the Water Cure, with an account of its Antiquity," in which he exposes the ignorance of Priessnitz, gives a minute description of his method of treatment, and describes its murderous results. The following is Dr. G.'s description of the man.]

Vincent Priessnitz, aged about 42, middle size, broad chest, well built, erect, enters the room with a short, light, active step. Marked with the smallpox, he appears older than he is. He has small gray eyes, deeply-seated, restless, twinkling, searching and suspicious, so that it is unpleasant to give him a steady look, under which he always seems impatient. His forehead appears receding, which arises from a fullness of the frontal sinuses, and not from any deficiency of cerebral development. His head is prominent at the vertex, large at the sides and behind the ears, where phrenologists place the organs of caution, secretiveness, acquisitiveness, firmness, and self-esteem. His manners and attitude are studied and constrained, from having practised the habit of compressing his lips, and, if standing, of planting his body in a fixed and firm position, especially when giving directions to his patients or listening to their inquiries. His answers are always short, and frequently obscure. If the patients trouble him with much questioning as to the *rationale* of his treatment, or the nature of their complaints, they are generally dismissed with a bow. Never was the *ipse dixit* of Aristotle considered more conclusive than the answers of Priessnitz. Their very obscurity carries with it the notion of a mysterious revelation, and is, by many, superstitiously considered a proof of inspiration. The friends of the patient eagerly inquire, "What said he?" and his sayings are often collected and treasured up, as were the scattered leaves of the Cumæan Sybil, or the dictates of a tutelary genius. Whilst giving his advice, he frequently predicts events, which for the most part are sufficiently remote as to the cure, but more at hand as to the effects of the treatment. He is sometimes correct in the former, and, from long experience, seldom errs in the latter. This foretelling of events has acquired for him an immense reputation amongst his imaginative countrymen, and led to that absurd belief that "he can see into the human body as if it were made of glass;" and so fully are they persuaded of it that the phrase is of constant recurrence, and in every one's mouth at Graefenberg. * * * * In giving his directions he seldom assigns a reason; neither does he inform his patients how long any part of the treatment is to be continued; but leaves them, on this most important point, as well as on every other, entirely in the dark. Should the reluctant patient hesitate, or consult his acquaintance, "Priessnitz said so, therefore it must be done," is the immediate reply. Thus his orders are as blindly followed as they are obscurely given. Consultations generally take place at table immediately after dinner, when this "physician of nature" is approached with the greatest deference and reverential awe. By some he is looked up to as a demi-god, and not unfrequently so designated; by others, who have not received any relief from his treatment, he is considered as a successful impostor. Whether, through the infatuation of his own countrymen, he has been imperceptibly led to impose upon himself, or whether he impudently assumes a character to which he knows he has not the shadow of a claim, is somewhat difficult to determine. Perhaps the veil of mystery is thrown over him in order to enhance the value of his advice; seeing men are apt to despise that which is simple, however valuable, on account of its simplicity, whilst they greatly extol that which is abstruse because it is above their comprehension.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON, OCTOBER 2, 1844.

Indian Medicines.—Notwithstanding the universal whim among ignorant people, of which that great tribe of quacks, called *Indian doctors*, avail themselves, that the aborigines possess extraordinary skill in managing the diseases to which they are themselves incident, nothing is more untrue. They are lamentably ignorant of the most common properties of the plants that grow near their wigwams. Like that of the Thomsonians, their treatment is nearly the same in every complaint, whether acute or chronic. They have not the remotest conception of the office of individual organs; nor are they apparently desirous of knowing a single law of the animal economy. The whole system of Indian practice, as now conducted by some of the western tribes, is made up of steaming by means of a hot stone, and in *unwitching* by the *medicine man.* His hideous incantations, yells, leaps, hops and gyrations, together with the monotony of a tom tom beating of a log drum with one head, hours in succession, are distracting to a civilized being, and to all appearance add new miseries to the woes of the poor wretch who becomes the subject of his laborious operations.

The Indians die in great numbers, the victims of excessive irregularity in diet, and exposures to inclemencies of weather, even under the most favorable circumstances of the savage state. By the addition of such vices as have their origin in drunkenness, where whiskey is attainable, the thread of life is made shorter still, and the red man, perhaps the best specimen of physical development on the globe, struggles with death like a giant contending for his rights, but falls in the vigor of his age, a sacrifice, often, to an appetite he neither understands nor attempts to control.

Whatever the Indians do for the sick is at hap-hazard, without reason or the elements of common sense. If a rheumatic pain is sometimes overcome by hot applications, deep-seated inflammations of the viscera often run on at a fearful speed, unchecked or unmodified by medication. Pulmonary consumption sweeps off multitudes of Indians. The poor creatures pass through all the various stages of pulmonary suffering, neither knowing the character of the malady, nor receiving any of those kindnesses which in civilized life smooth the rough road to death.

True it is, that civilization has brought in its train an army of distempers that are strangers in the Indian camp; yet the condition of the civilized is far better, in its worst form, than that of the forlorn and roving Indian, in its very best aspect.

The Indians of North America have no remedies, worth noticing, nor any knowledge of diseases, claiming the least degree of respect. Those, therefore, who palm themselves off upon the bequacked community, as possessors of Indian skill, are rank impostors, who would pick a pocket if they were sure of escaping detection. There are nostrums sold, even in Boston, purporting to have been an Indian composition. This, too, is an abominable imposition. Even a celebrated syrup, by which one druggist in Boston has the reputation of having made something of a fortune, originated in Washington street instead of Passamaquaddy, and is manufactured on a large scale at South Boston, by persons who undoubtedly laugh at those who buy—and still more at those who take it. No confidence should be reposed in any preparation announced as being an Indian medicine. They have no medicines.

Lectures in Medical Colleges.—Catalogues, bearing the prospectus of coming events in the way of lectures, have been gradually accumulating for some weeks.

The Medical Department of *Pennsylvania College,* located in Filbert street, Philadelphia, possesses excellent accommodations. Lectures commence, annually, the first Monday in November. The Faculty seem to be a new set of men, but most of them are well known in the profession.

Columbian College, at Washington city, is progressively establishing a firm reputation. Slow and sure, is better than a flourish and death. The Faculty are well known to the world as men of sterling ability in their several departments. Dr. Page, recently elected to the professorship of Chemistry, is not surpassed by any man of his years, in the country. To genius, he adds perseverance and industry. Lectures at Washington also commence the first Monday in November.

Willoughby University, on Lake Erie, soon opens for public lectures. The village of Willoughby is only nineteen miles east of Cleaveland, on the great thoroughfare between Buffalo and Detroit. Dr. Childs has taken the chair of Obstetrics and Diseases of Women and Children in this school.

Jefferson Medical College, Philadelphia, takes high rank. No opposition can operate against the onward march of this enterprising College. There is no standing still there. The officers have not obtained their places by being cousins or sons-in-law of the Trustees, or relatives of some professor. Merit, there, really gives a man a claim to the consideration of the elective body which has the power of making professors. In 1842 there were 229 students—and the last course, the number was 341.

Castleton Medical College is represented to be eminently successful by its friends—while its enemies boastingly exclaim, can any good thing come out of Nazareth? On the last catalogue there were 130 names, which is undeniably a large class, and one that would satisfy the ambitious views of almost any country institution.

The Philadelphia Medical Association, in its organization, plainly discovers the germ of another college. Great and manifest advantages grow out of an attendance on the course of instruction given by the Association. The third session for lectures on all branches will open in April, 1845, and continue till the end of October following.

At a convenient time we shall resume the notice of other schools, as they open for the season.

Medicines and their Uses.—Although not extensively known in America, a treatise *On Medicines and their Uses*, by J. M. Neligan, M.D., has been published in England, and extended the author's reputation wherever English books are read. First—there is the officinal and common name of each article; 2d, its physical properties; 3d, its chemical; and, 4th, its mode of preparation. Next, the adulteration of individual drugs, with the manner of detecting the imposition; the therapeutical effects; the dose, and method of administration, together with the incompatibles; poisons, their antidotes and treatment.

To make this work most serviceable to practitioners in this country—and for them it is a particularly useful monitor—Dr. Reese, of New York, an eminent, devoted teacher and writer, has entirely remodelled the volume, by adding notes, conforming the author's labors to the pharmacopœia of the United States, and including all that is new or important in recent improvements. Notwithstanding the literary services of Dr. Reese in this instance, for which it would by no means be unnatural for him to feel some considerable solicitude, he assures the public that the most accurate, philosophical and complete arrangement of the Materia Medica, which has ever been published, is by Dr. Martyn Paine, of the University of New York. This is true honesty, unhesitatingly avowed, even if it should interfere with the prospects of his own production on nearly the same class of subjects. If such men only were in the profession, it would soon become an earthly paradise. Instead of rivalry, circumvention, and a low estimate of each other's powers, whenever they happen to conflict with individual self-interest, uninterrupted harmony would characterize the whole body of medical men. Without having much more than turned from page to page, we are convinced of the utility and accuracy of this book. By looking at the preliminary observations of the chapter appropriated to cathartics, the evidence of a working intellect is brought vividly into view. We are of the opinion that Dr. Neligan's researches into medicines and their uses, will soon be appreciated and patronized throughout the country. For sale at Jordan, Swift & Wiley's.

Aids to the Study of Medicine.—A revised and modified edition of a book prepared some two or three years since by Dr. Dunglison, of Philadelphia, called *The Medical Student, or Aids to the Study of Medicine*, has been brought out by Messrs. Lea & Blanchard, which is procurable at Messrs. Ticknor & Co.'s, in Boston. The observations of the author apply to the study of medicine, as taught in this country. He does not propose any unattainable points, yet it is uppermost in the doctor's mind to show what a medical education should be in the United States. A feeling of curiosity, alone, should prompt all medical students to procure a work expressly designed for their permanent advantage. There is a vocabulary in the body of the volume, which of itself is worth half as much as the whole would cost. The chapter on prescriptions might be studied to profit by many who are supposed to be wiser than they really are in such matters.

Structure of the Human Body.—Part IV. of Dr. Smith's Anatomical Atlas, has been published. Nothing is yet wanting to make it all that was anticipated by professed anatomists. Illustrations of the circulatory system are admirable, and so are those also of the heart, arteries. veins and lymphatics. One more number completes the set, which would be highly estimated by those who may order it.

Connecticut Retreat for the Insane.—This institution is in Hartford, which is a charming city—and the Retreat is a delightful place. People make use of the old adage, by way of illustration, about jumping out of the pan into the fire; but when Dr. Butler made his exit from South Boston to the Retreat, he went from a good place to a better one. We shall now only advert to the fact, that the institution is well conducted, and the Superintendent sustains himself, and the character of the Retreat, to the perfect satisfaction of the public. At the beginning of the year, there were 89 patients; admitted during the year, 80; died, 9; recovered 44; and remaining, 83. Some statistics of the cost of supporting the inmates may, perhaps, be adverted to hereafter.

Means of avoiding the Electric Current during a Thunder Storm.—The place of greatest security is a railway carriage at a distance from the engine. The rails dissipate the negative charge. An individual is also perfectly protected in an iron vessel at sea. In a house, the most secure position is the most central point, if in an apartment without a flue the better. A cellar affords good security against the upward or negative current, whilst a bed affords the best security against the effects of the downward or positive current. To avoid danger, if an individual is on high ground, he should descend; if in a field, he should retire to a hedge; within twenty yards of a tree is a safe position, and, if possible, lying down. It is better not to remain on horseback during a thunder storm, and those who are in carriages should keep the windows closed. At sea it is necessary to avoid the masts and forecastle of the vessel and to retire to a hammock. If in a boat, rear a wet oar near its head, retire to the stern and lie down. A position near a lake or stream of water is highly dangerous.—*Turley on Thunder Storms: Medico-Chir. Review.*

Medical Miscellany.—It is proposed to establish a College of Chemistry in London.—The Thomsonians of the State of Maine propose holding an annual meeting at Freedom, on the 24th instant.—Cases of yellow fever have occurred in New Orleans and in Mobile, but no great alarm has been created. Northern people should not go South at present.—In the Municipal Court of Boston, last week, Geo. E. Morrill, an irregular medical practitioner, was convicted of crime, in his capacity of an animal magnetizer.—At Woodville, Miss., the fever is proving dreadfully destructive.—A great deal of sickness exists in North Carolina, near the borders of the Neuse and Tar rivers.—Dr. Samuel Sterry, of the city of New York, is a candidate for representative to Congress.—Owing to the non-arrival of the medical officers of the U. S. brig Oregon, bound from Norfolk to Chagres, Dr. William Moore, of that city, was taken on board to act as surgeon.—Fever and ague, remittents of every type and degree, now prevail in the interior of Illinois, Missouri and the Upper Mississippi.

To Correspondents.—The communications of Dr. Pancoast, Dr. Ramsey and Dr. Dixon, are on file for publication.

Married,—In New York, Edward Gray, M.D., to Miss A. J. Martin; Minturn Post, M.D., to Miss Mary King.

Died,—At Saratoga, N. Y., Dr. Stadlin, a German physician, by the bite of a rattlesnake with which he was playing.—At Guilford, Conn., Dr. Benoni Sweet, called the *celebrated bone-setter.*—At Syracuse, N. Y., Dr. Geo. Smith.—At Bedford, Westchester Co., N. Y., Dr. James H. Hart, 47.—At Bordeaux, France, Charles Poyen, M.D., well known in New England as the reviver of animal magnetism.—At East Windsor, Conn., James Hervey Morton, M.D., 45.

Number of deaths in Boston for the week ending Sept. 28, 63.—Males, 35; Females, 28. Stillborn, 6. Of consumption, 9—marasmus, 1—dropsy in the brain, 3—scarlet fever, 7—infantile, 7—decline, 2—typhus fever, 2—inflammation of the lungs, 1—hooping cough, 2—canker in the bowels, 1—bowel complaint, 4—cholera infantum, 4—canker, 1—fits, 1—old age, 1—dropsy, 3—inflammation of the brain, 2—liver complaint, 1—enlargement of the heart, 1—inflammation of the stomach, 1—hæmorrhage, 1—croup, 2—inflammation of the bowels, 1—cholera morbus, 1—intemperance, 1—paralytic, 1—jaundice, 1—unknown, 1.

Under 5 years, 36—between 5 and 20 years, 1—between 20 and 60 years, 21—over 60 years, 5.

Health and Fecundity of the Region around Fort Kent, Maine.—These two highly interesting questions, both as regards the United States troops and the French Acadian population, are clearly illustrated by Dr. Wotherspoon, in the following extract from his letter, dated July 1 :—

"During the last two months not one of the men has been confined to bed by sickness, even for a single day, and the same universal good health seems to prevail in the surrounding country. One is the more inclined to wonder at this, on seeing the crowds of little unvaccinated wretches that swarm around the door of every log hut, half clothed, and but poorly fed on sour black bread and potatoes. Nothing has astonished me so much as the large families that are found among the French inhabitants. Five adjoining married couples have had in all 40 children, of whom, 35 are living. A man immediately opposite, on the other side of the St. John, has 27 by two wives, the second of whom bore 14. Lareut Ferriaud, at Green River, has had 25 children by one wife—no abortions. Buonaventure Le Crog had 19 children in 18 years ; and of these, 5 pair were twins. Pierre Richou has had 6 in 3 years, 3 pair twins ; all now living at Shattaquoi, six miles below the fort. Mr. Webber, the present State Commissioner, mentioned that in one house he found a woman with 5 children under 3½ years, one twin and one triplet birth. She was then a third time pregnant, her husband confidently expecting soon to be presented with another pair of the 'pretty prattlers.' I have had several females apply for advice for a prolapsus uteri and leucorrhœa, induced by too rapid child-bearing, and by the habit which all the women around here have, of rising from the bed the second or third day, in order to attend to their accustomed household duties. Day before yesterday, a pretty little French woman consulted me on this account ; on inquiry, I found that she had had five children in six years. I think that 'Ould Ireland' can hardly hold a candle to the Madawaski plantation in either the production of children or potatoes."

This law of extraordinary fecundity and of equally remarkable health is not, however, in conformity to the law developed by statistics, which shows that the ratios of births and of deaths bear a direct relation.—*New York Journal of Medicine and the Collateral Sciences.*

Treatment of Calculus of the Bladder by Electricity.—Dr. Wm. Maclure, of London, writes as follows to the editor of the Lancet, on a new method of treating stone in the bladder.

"A 'Sufferer' imploringly asks in your last number whether you know anything of a method for the cure of stone by electricity, and seems justly to estimate its importance. For his comfort I beg to inform him that there is such a method, and, I believe, a successful one. The author of it, whom at present I have no authority to name publicly, was so good as to call on me, about a fortnight ago, with a patient, on whom he had successfully operated, in order to show me what had been done. The man was perfectly well after, I think, about two months' treatment. I questioned him as to his previous suffering, and there can be no doubt that he had labored under very aggravated symptoms of stone in the bladder. He had, moreover, been sounded, I was told, at one of the Borough hospitals, by an eminent surgeon, whose opinion was that there was a large calculus. The physician who brought him to me informed me that it was a very large lithic acid calculus that had been decomposed. I presume that very soon the subject will be brought before the profession and the public,